

NORTHWESTERN HIGH SCHOOL

PROGRAM OF STUDY 2016-2017

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Mr. Joe Nagle	Guidance Counselor
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MISSION STATEMENT

The Northwestern School District, in partnership with its parents, seeks to instill in its students, high standards for academic scholarship, integrity, leadership, and responsible citizenship.

Dear Student and Parent,

The following information is supplied to assist with creating a well-balanced schedule for the next school year that should be based on the student's individual four-year plan. Some areas that may be considered when making student course selections are:

- Individual educational goals
- Career interests
- Past achievements and performance
- Keystone scores
- Standardized assessment results
- District assessment results
- Course grades
- District graduation requirements
- Course requirements and prerequisites
- Course credits
- Teacher/Counselor recommendations

We understand that this informational packet cannot address all of the individual situations and concerns. If you have any questions about your scheduling choices, please make an appointment with your counselor. Making good choices for your academic plan will make a positive impact on your future.

An Equal Rights and Opportunities School District

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GRADUATION REQUIREMENTS

For graduation, a minimum of **26** academic credits must be earned in grades 9, 10, 11, and 12. The following courses are required for graduation:

ACADEMIC AREAS	REQUIRED CREDITS
ENGLISH	4.00
SOCIAL STUDIES	4.00
MATHEMATICS	4.00
SCIENCE	3.00
PHYSICAL EDUCATION	1.50
INTRODUCTION TO COMPUTER APPLICATIONS	0.50
HEALTH	0.50
CAREER EXPLORATION	0.50
ELECTIVES*	8.00
TOTAL	26 credits

GRADE POINT AVERAGE

Every student in grades 9-12 will earn a grade point average. A higher weight or value is placed on all AP courses, a 1.15 multiplier. Accelerated and Dual Enrollment courses receive a 1.1 multiplier. All other regular courses earn a 1.0.

GRADING SYSTEM

GRADE	PERCENT	GRADE POINT VALUE
A+	99-100	4.50
A	92-98	4.00
A-	90-91	3.75
B+	88-89	3.50
B	82-87	3.00
B-	80-81	2.75
C+	78-79	2.50
C	72-77	2.00
C	70-71	1.75
D+	68-69	1.50
D	62-67	1.00
D-	60-61	0.75
F	1-59	0.40

KEYSTONE EXAMS

Keystone Exams are Pennsylvania State required end-of-course exams. After a student takes a Keystone related course, the student is required to take the appropriate Keystone Exam. The Keystone Exams currently given are Algebra I, English Literature, and Biology. Student performance will be attributed to the district's School Performance Profile in his/her 11th grade year. If a student takes any of the three exams and scores proficient or advanced before grade 11, the student's score will be banked.

If a student does not pass a Keystone Exam, he/she must receive remediation to ensure understanding of academic areas of weakness. After remediation, the student will re-take the Keystone Exam. If the student is unsuccessful after two attempts of any one Keystone Exam, the student will be required to pass an end of year assessment that contains course content that reflects the content of the related Keystone Exam.

To view the Eligible Content for the Keystone Exams, please visit:
<http://www.pdesas.org/module/assessment/pages/keystone/>

To view the PA Core Standards, please visit:

<http://www.pdesas.org/standard/PACore>



CAREER PATHWAYS OF STUDY

During the eighth grade year, all students will select one of the pathways of study that may be followed through their ninth, tenth, eleventh, and twelfth grade years.

All students in grades nine through eleven must carry a minimum of seven credits. Seniors must carry a minimum of six credits. The principal(s) and/or guidance counselor(s) are authorized to work out the schedules of students who have failed subjects or Keystone Exams. These decisions will be made within the District's graduation requirements.

The five Career Pathways of study are:

1. Arts and Humanities
2. Business and Information Technology
3. Health and Human Services
4. Environmental and Resource Management
5. Engineering, Manufacturing, and Industrial Technologies

ARTS AND HUMANITIES

The Arts and Humanities Pathway is designed for those students who plan to attend college or some type of higher education. This pathway requires the ability to express oneself well in English and requires two years of a world language. It is designed to cultivate student awareness, interpretation, application, and production of visual, verbal, and written work. The Arts and Humanities Pathway incorporates the Career Cruising Clusters of: Arts, A/V Technology and Communication, and Education/Training. For those students with an interest in Arts and Humanities, eventual occupation choices could include:

- | | |
|-------------|------------|
| ❖ Actor | ❖ Animator |
| ❖ Dancer | ❖ Editor |
| ❖ Librarian | ❖ Musician |
| ❖ Teacher | ❖ Writer |

BUSINESS AND INFORMATION TECHNOLOGY

The Business and Information Technology Pathway should be selected by those students who are interested in entering the business world upon completion of high school, or by those who wish to go on to a post-secondary school, either a four year college or business school. This Pathway incorporates the Career Cruising Clusters of: Business Management and Administration, Marketing, Hospitality and Tourism, Finance, and Information Technology. For those students with an interest in Business and Information Technology, eventual occupation choices could include:

- | | |
|-----------------------|----------------------------|
| ❖ Accountant | ❖ Administrative Assistant |
| ❖ Computer Programmer | ❖ Financial Manager |
| ❖ Graphic Designer | ❖ Medical Secretary |
| ❖ Real Estate Agent | ❖ Systems Analyst |

HEALTH AND HUMAN SERVICES

Students interested in careers in Health and Human Services are often interested in helping others in a variety of different ways. These students could be planning to attend a variety of post secondary schools or enter the workforce. For those students with an interest in Health and Human Services, eventual occupation choices could include:

- | | |
|------------------|-----------------|
| ❖ Chef | ❖ Cosmetologist |
| ❖ Dentist | ❖ Lawyer |
| ❖ Police Officer | ❖ Psychologist |
| ❖ Social Worker | ❖ Teacher |

ENVIRONMENTAL AND NATURAL RESOURCE MANAGEMENT

Students selecting the Environmental and Resource Management Pathway will receive instruction in general agriculture and business related sciences along with agricultural mechanics. These students could be planning to attend post secondary training, enter the work force or join the military. For those students with an interest in Environmental and Resource Management, eventual occupation choices could include:

- | | |
|------------------------------|--------------------------|
| ❖ Environmental Engineer | ❖ Fish/Game Commissioner |
| ❖ Forensic Scientist | ❖ Forest Ranger |
| ❖ Landscaper | ❖ Marine Biologist |
| ❖ Soil/Water Conservationist | ❖ Veterinarian |

ENGINEERING, MANUFACTURING, AND INDUSTRIAL TECHNOLOGIES

This program attempts to give students an understanding of the technological world and helps students decide what technological area they are most suited for. This program will raise students' awareness to careers related to design, development, and equipment. These students may be interested in college, technical or trade schools, the military or the work force. For those students with an interest in Engineering, Manufacturing and Industrial Technologies, eventual occupation choices could include:

- | | |
|-----------------------|---------------------|
| ❖ Architect | ❖ Brick Mason |
| ❖ Carpenter | ❖ Chemical Engineer |
| ❖ Diesel Mechanic | ❖ Machinist |
| ❖ Robotics Technician | ❖ Welder |

Senior High Recommended Courses

This is a general framework of courses. Other remedial, special education, accelerated or AP level courses could be substituted

9 th Grade Recommended Courses	
COURSE	CREDIT
English 9	1.0
Algebra I	1.0
American History	1.0
Physical Science	1.0
Physical Education	0.5
Intro Computer App.	0.5
Electives	2.0
TOTAL Credits	7.0

10 th Grade Recommended Courses	
COURSE	CREDIT
English 10	1.0
Geometry	1.0
US History	1.0
Biology I	1.0
Physical Education	0.5
Career Exploration	0.5
Electives	2.0
TOTAL Credits	7.0

11 th Grade Recommended Courses	
COURSE	CREDIT
English 11	1.0
Algebra II	1.0
Civics	1.0
Chemistry I	1.0
Physical Education	0.5
Health	0.5
Electives	2.0
TOTAL Credits	7.0

12 th Grade Recommended Courses	
COURSE	CREDIT
English 12	1.0
Mathematics	1.0
World Cultures	1.0
Electives	4.0
TOTAL Credits	7.0

ENGLISH DEPARTMENT

099 BASIC ENGLISH (9)CREDIT = 1

Students who have had difficulties with reading or language arts may be recommended by their teacher for placement in the Basic English 9 class. Basic reading and study skills are emphasized. The essentials of grammar and composition, as well as spelling and vocabulary development, will be studied.

098 ENGLISH (9)..... CREDIT = 1

The English 9 program provides students with a good foundation in writing paragraphs, essays, and reports. Rules of grammar, punctuation, and spelling are reviewed. Another area of major importance is the study of various forms of literature. Also emphasized are vocabulary development, study skills, note taking, and gathering information from a variety of sources.

096 ACCELERATED ENGLISH (9)CREDIT = 1

PREREQUISITE: Teacher Recommendation

The Accelerated English 9 program is designed for college-bound students of superior ability and motivation who want to develop a high level of proficiency in the areas of grammar, composition, literary analysis, and vocabulary acquisition. Major goals of the course include fostering an appreciation of the richness of literature and developing the writing skills that are essential for success in both high school and college.

101 BASIC ENGLISH (10) CREDIT = 1

Students who have had difficulties with reading or language arts may be recommended by their teacher for placement in the Basic English 10 class. This course attempts to help the student in all language skills areas - listening, speaking, reading, writing and study skills. It gives the student opportunities to work on the specific weaknesses and to succeed in a classroom situation.

100 ENGLISH (10).....CREDIT = 1

This course stresses skills and concepts in six major areas: grammar and mechanics, vocabulary, composition, speaking and listening, comprehension, and literature. The study of grammar and mechanics is improving the quality of the students' oral and written communication. Vocabulary is developed for optimum performance in standardized testing and personal usage. Composition is mainly expository and persuasive and frequently related to literature. Speaking and listening comprehension components introduce students to formalized speaking and listening and teach students to organize their ideas, support them, and present them in a unified and coherent form. The study of literature focuses on the form and allows the students to confront and discuss the universal problems and ideas of man and make applications to life situations. Additionally, outside readings are required in an attempt to enrich the students' awareness of the world of literature.

102 ACCELERATED ENGLISH (10) CREDIT = 1

This course progresses at an accelerated pace and stresses skills and concepts in five major areas: grammar and mechanics, vocabulary, composition, speaking and listening comprehension, and literature. The study of grammar and mechanics is directed primarily at improving the quality of the students' oral and written communication. Vocabulary is developed for optimum performance in standardized testing and personal usage. Composition is mainly expository and persuasive, and frequently related to literature. Speaking and listening comprehension components introduce students to formalized speaking and listening and teach students to organize their ideas logically, support them, and present them in a unified and coherent form. The study of literature focuses on the form and allows the students to confront and discuss the universal problems and ideals of man and make applications to their life situations.

Additionally, outside readings are required in an attempt to enrich the students' awareness of the world of literature. The amount of time and the degree of emphasis on these concepts and skills vary according to the needs of the students enrolled.

111 BASIC ENGLISH (11)CREDIT = 1

Students who have had difficulties with reading or language arts may be recommended by their teacher for placement in the Basic English 11 class. This course is designed for the slow learner. Reading and grammar are stressed, though some of the complex concepts of grammar are omitted (verbal, subjunctive mood) in order to devote more time to fundamental concepts (spelling, letter writing, resumes). This course can be taken only through the recommendation of the teacher.

110 ENGLISH (11).....CREDIT = 1

This is a survey course in American Literature (novels, poetry, nonfiction, and short stories) for the student who may or may not be attending college. Composition and discussion activities are used to develop student attitudes and ideas concerning his/her role American culture.

112 ACCELERATED ENGLISH (11)CREDIT = 1

Accelerated English 11 is a college preparatory survey course of American literature centered upon the analytical reading of novels, short stories, poems, and various nonfiction pieces. Writing as well as communication skills are honed and vocabulary is built through assignments based upon the literature studied.

121 BASIC ENGLISH (12) CREDIT = 1

Students who have had difficulties with reading or language arts may be recommended by their teacher for placement in the Basic English 12 class. This course attempts to help the student in all language skill areas: listening, speaking, reading, writing, and study skills. It gives him an opportunity to work on specific weaknesses and to succeed in a classroom situation.

120 ENGLISH (12)..... CREDIT = 1

English 12 emphasizes the basic skills of communication: spelling, vocabulary, mechanics, and reading. As a result of this course, students should demonstrate a mastery of these language arts skills that will help them meet the standard speaking and writing demands for a career. In addition, students are taught to prepare a resume.

122 ACCELERATED ENGLISH (12)CREDIT = 1

Accelerated English 11 is a college preparatory survey course of American literature centered upon the analytical reading of novels, short stories, poems, and various nonfiction pieces. Writing as well as communication skills are honed and vocabulary is built through assignments based upon the literature studied.

125 ADVANCED PLACEMENT LANGUAGE AND COMPOSITION (12)CREDIT = 1

Advanced Placement English Language and Composition is a college level course in reading, analyzing, and writing prose. This course focuses on rhetoric, style, and the development of mature writing skills. It emphasizes expository, analytical, argumentative, and descriptive essays of 500 to 1,000 words which aid a student to write competently in all college courses. The writing demands will include sufficient preparation to take the AP exam in English Language and Composition. The exam is given in May by the College Board. Successful performance on the exam may earn college credit for the course. The AP Language course uses nonfiction, fiction and poetry models from various periods of mostly British Literature to create an awareness of different syntax, diction levels and purposes. Group discussion, oral presentations, journal writing, portfolio, and the use of computer word processing skills will also be a part of this course.

126 ADVANCED PLACEMENT LITERATURE AND COMPOSITION.....CREDIT = 1

Advanced Placement English Literature and Composition is a college level course in reading both classical and contemporary forms of literatures. In this course, students will learn to analyze and interpret imaginative literature through the careful reading and critical analysis of representative works from various genres and periods. The course provides opportunities for students to explore literary works beyond the scope of a regular English classroom. Students that complete this course will be prepared to take the AP exam in Literature and Composition, which is given by the College Board. Successful performance on the exam may earn college credit for the course.

153,154,155,156 LEARNING SUPPORT ENGLISH (9,10,11,12)CREDIT = 1

This course is designed to improve the learning support student's basic vocabulary, to develop reading skills, and to practice writing skills. The student must meet guidelines set by the PA Dept. of Education.

MATHEMATICS DEPARTMENT

404 GEOMETRY SKILLS & CONCEPTSCREDIT = 1

The course is designed to refresh geometry for students who had difficulty completing the regular courses. The class provides review of the major topics of geometry. Students taking this course will have a better understanding of basic math principles and those introduced in geometry.

405 ALGEBRA SKILLS & CONCEPTS.....CREDIT= 1

This course is designed to refresh Algebra I for students who had difficulty completing the regular course. The class provides review of the major topics of Algebra I. Students taking this course will have a better understanding of basic math principles and those introduced in Algebra I.

406 PRE-ALGEBRA.....CREDIT = 1

This course reinforces the concepts of fractions, decimals, and percentages as well as rational numbers, exponentiation and operations with signed numbers and solving simple linear equations. This course provides a strong foundation for students to succeed in Algebra.

407 ALGEBRA ICREDIT = 1

This is the foundation course for the entire academic mathematics program. This course will cover all the Pennsylvania Academic Standards necessary for successful completion of the Keystone Exam in Algebra I. Emphasis is placed upon the basic structure of Algebra in the real number system. Topics include operations with real numbers and expressions, applying and solving equations and inequalities, graphing linear functions and relations, applications of coordinate geometry, and data analysis.

408 FOUNDATIONS OF ALGEBRA.....CREDIT = 1

This course is a review of the foundations and fundamental concepts of Algebra. It is intended for those students who have completed Algebra 1 but have yet to pass the Algebra 1 Keystone Exam. It is the bridge from the concrete to the abstract study of mathematics. The high school portion of the Standards for Mathematical Content specifies the mathematics all students should study for college and career readiness. Topics include operations with real numbers and expressions, applying and solving equations and inequalities, graphing linear functions and relations, applications of coordinate geometry, and data analysis. Real word applications are presented within the course content and a functions approach is emphasized.

409 GEOMETRY.....CREDIT = 1

This course provides an in-depth coverage of Euclidean proofs and analytic geometry. Conditional statements, similarities of geometric figures, as well as translations, rotations, reflections and dilations are covered in great depth.

410 ALGEBRA IICREDIT = 1

This course is designed to reinforce and expand on the skills learned in Algebra I. Topics included in this course are factoring, operations of polynomials, graphing linear and quadratic equations, systems of linear equations, radicals, logarithms, and complex numbers. Emphasis is placed on the application of algebraic skills learned in the solution of word problems. The advanced skills of algebra are also applied to geometric shapes.

411 TRIGONOMETRY/PRE-CALCULUSCREDIT = 1

PREREQUISITE: Geometry and Algebra II

This course contains an intensive review of topics from Algebra II and Analytical Geometry that are necessary for success in Calculus. Students will also learn topics of Trigonometry involving right and oblique triangles. Students will have an opportunity to graph trigonometric functions and solve problems using several trigonometric identities.

412 ADVANCED PLACEMENT CALCULUSCREDIT = 1

PREREQUISITE: Trigonometry/Pre-Calculus

This is an intense course that covers the topics of limits, continuity, differentiability, analyzing graphs, integration, and other related topics. Besides homework and tests, students will be required to do sample questions to prepare for the AP exam.

414 STATISTICSCREDIT = 1

Statistical tests are commonly used in quantitative research. The purpose of this course is to provide a brief introduction to statistics, with an emphasis on statistics used in the sciences. Descriptive statistics, probability and inferential statistics are examined. Students are expected to have strong algebra skills.

420 LEARNING SUPPORT ALGEBRA I-ACREDIT = 1

This course offers the fundamental concepts of Algebra. The instruction focuses on bridging the gap from concrete to abstract. Topics include: operations with real numbers and expressions, applying and solving equations and inequalities, graphic linear functions and relations, applications of coordinate geometry and data analysis. This course offers standards-aligned instruction and deepens the student's understanding of the Algebra I curriculum. The student must meet the guidelines set by the PA Department of Education.

421 LEARNING SUPPORT ALGEBRA I-BCREDIT = 1

This course offers a continuation of the fundamental concepts of Algebra I-A. The instruction focuses on bridging the gap from concrete to abstract. Real world applications are presented within the course content and a function's approach is emphasized. Topics increase in relevance and rigor following the foundations course Algebra I-A. The student must meet the guidelines set by the PA Department of Education.

422 LEARNING SUPPORT MATH 12CREDIT = 1

This course is designed for the learning support student who needs improvement in the areas of arithmetic computation, (i.e., addition, subtraction, multiplication, division, fractions and decimals). The student must meet the guidelines set by the PA Department of Education.

HISTORY DEPARTMENT

196 AMERICAN HISTORYCREDIT = 1

The course is designed to cover primarily United States history from 1865 to WW II. Some of the basic topics to be covered will be: Post Civil War Era Reconstruction & the lingering issues, The Settling & Transformation of the West & why was it lawless and wild, The effects of Industrialization-Immigration-Urbanization, The Progressive Era, American Imperialism & WWI, The Roaring 20's and The Great Depression, and the beginnings of WWII through the rise of Fascism.

197 ACCELERATED AMERICAN HISTORYCREDIT = 1

This course incorporates the same material as Course #196, but is adapted to the more accelerated student.

198 US HISTORY SINCE 1945CREDIT = 1

This course content will cover the end of WW II to the present day. Students will experience the reconstruction of Europe, while America grows economically and politically, becoming a world power. The conflicts of WW II, Korea, Vietnam, Grenada, the Cold War, Desert Storm and 9/11 with its culminating war on terrorism in Iraq and Afghanistan will be reviewed. Their effects on the United States socially, economically, and militarily will be considered. There will also be a focus on current domestic and world affairs.

199 ACCELERATED US HISTORY SINCE 1945.....CREDIT = 1

This course incorporates the same material as #198, but is adapted to the more accelerated student.

200 CIVICSCREDIT = 1

The Civics course is comprised of two basic study areas. First, it is the study of the individual's rights and responsibilities as an American citizen. Second, it is the study of American government; its institutions, offices, and democratic processes. The following general content area will be considered: citizenship, the United States, political parties, and interest groups, elections, local, state, and federal government, the three branches of the Federal Government, the American legal and economic systems, United States foreign policy, and current events. Special projects will be included in the following areas: opinion polls and surveys, the media, Pennsylvania history, public speaking, techniques, and courtroom procedures. The course will also include presentations by various political and career related guest speakers.

201 ACCELERATED CIVICS.....CREDIT = 1

This course incorporates the same material as Course #200, but is adapted to the more accelerated student.

202 WORLD CULTURESCREDIT = 1

World cultures give the student a chance to compare their culture to that of others around the world and throughout the ages. The comparison will be conducted through time and space. Emphasis will be placed on the rise of civilization, Europe, in the Middle Ages, as well as the Renaissance, the rise of nation states, the reformation, the spread of Islam, and the study of Eastern Europe. Multi- cultural topics and activities will be explored. Study will focus on the geography, history, government, culture and the arts, as well as on current events.

203 ACCELERATED WORLD CULTURESCREDIT = 1

This course incorporates the same materials as Course #202, but is adapted to the more accelerated student.

209 ADVANCED PLACEMENT UNITED STATES HISTORY (11, 12).....CREDIT = 1

The course is designed to be the equivalent of a freshman college course, and can provide an opportunity for students to earn college credit. The two-semester course surveys American history from the time of European discovery and exploration to the present. Reading, writing, and historical research are the key components of this course. Students will need to allot significantly more time to these tasks than would be required in other history courses. Basic class format is lecture/discussion and includes, in each unit, special activities such as debates, persuasive speeches and other oral presentations, simulated court proceedings, and the creation of various written documents. These activities will require the students to research and understand the historical positions they purport to represent. Opportunities will be available for creative use of audio and video in class presentations. A research project on a topic relating to local history to the national experience will be required. Since significant portions of the AP U.S. History exam include free response and document based essay questions, attention will be paid to development of student skills in organizing and writing timed essays.

210 ADVANCED PLACEMENT EUROPEAN HISTORY (11, 12)CREDIT = 1

The AP course examining European History is intended for qualified students who wish to complete studies in secondary school equivalent to a college introductory course in European history. The study of European history since 1450 introduces students to cultural, economic, political, and social developments that played a fundamental role in shaping the world in which we live. Without this knowledge, we would all lack the context for understanding the development of contemporary institutions, the role of conflict and continuity in present-day society and politics, and the evolution of current forms of artistic expression and intellectual discourse.

In addition to providing a basic narrative of events and movements, the goals of the AP program in European History are to develop (a) an understanding of some of the principal themes in modern European history, (b) an ability to analyze historical evidence, and (c) an ability to analyze and to express historical understanding in writing.

212 PSYCHOLOGYCREDIT = .5

The “stress” in this course will be on psychology as a science and the methods used by psychologists. Subjects of psychology such as learning, personality, human development, intelligence, and behavior will be covered. The last part of the course will deal with the major mental illnesses and some suggestions for positive mental hygiene.

213 LAWCREDIT = .5

Criminal law and constitutional rights and responsibilities of the students will be stressed. An in-depth examination of the criminal justice system will be an integral part of this course. Resource personnel from the greater Erie community will be invited as speakers in their respective fields. A field trip to the Erie County Court House is an integral part of the last part of this course. The course is highly recommended for college bound students.

214 US HISTORY THROUGH THE LENS OF PROFESSIONAL SPORTSCREDIT = .5

This course will explore and analyze how society in the United States was and is reflected in various professional sports. The theme is that over the course of American History, sports and other forms of entertainment served as a mirror of the values of America at that time. It will look at various historical figures, teams, accomplishments, stories, and trends in pro sports and relate them to what was happening in the country at that time. There would also be an analysis of current sport events, and how they reflect societal values.

224 GEOGRAPHY/ECONOMICS (FIRST SEMESTER).....CREDIT = .5

The Geo/Econ course is designed to incorporate two areas of study during one semester. The students will be given an opportunity to learn the basic economic principles governing American society. There will be a survey of the economic globalization, simple economics and consumerism.

The second half will consist of a hands-on study of geography. Students will be immersed in a survey of geography, map reading, topography, and geographic landforms. In addition, there will be a focus on North American nations, capitals, provinces, and states. An overview of world nations will follow.

225 ART HISTORY (SECOND SEMESTER).....CREDIT = .5

Within the course, an overview of art, architecture, history, literature, music and philosophy is explored. Emphasis is placed on our cultural roots beginning with the Dawn of Culture and working towards the contemporary. An emphasis will be placed on specific cultures and civilizations; Egyptian, Greek, Roman, Japanese, Chinese and Medieval European. These past civilizations and their attributes are important to learn and explore to gain a better understanding of the modern world.

242, 243, 244, 245 LEARNING SUPPORT SOCIAL STUDIES (9,10,11,12).....CREDIT = 1

This course is designed to teach the learning support student basic social studies. Students must meet guidelines set by the PA Department of Education.

SCIENCE DEPARTMENT

298 PHYSICAL SCIENCE (9)CREDIT = 1

The high school Physical Science curriculum continues students' investigations of the physical world that began in grades K -8. The course is designed as an introduction to the major concepts in chemistry and physics. Concepts such as structure of atoms, conservation of matter and energy, periodic table principles, motion, forces, types of energy, gravity, machines, electricity and the behavior of waves are addressed. These concepts are investigated through laboratory experiences designed to promote and develop appropriate skills in science inquiry.

297 ACCELERATED PHYSICAL SCIENCE (9)CREDIT = 1

This course consists of individual and group investigations of basic chemistry and physics. Emphasis will be placed on a more independent and analytical approach to problem solving. Through a laboratory-based curriculum students will study atomic structure, elements, mixture and compounds. An in-depth study of energy will also be covered, as well as motion.

300 BIOLOGY (10) CREDIT = 1

This course will cover all Pennsylvania Academic Standards necessary for successful completion of the Keystone Exam in Biology. General topics include cell structures and process, genetics, and evolution. Specific concepts within each of these disciplines will be covered in greater detail. Course activities will include labs, research projects, lectures, and group investigations.

301 FUNDAMENTALS OF PHYSICAL SCIENCE.....CREDIT = 1

PREREQUISITE: Teacher recommendation only.

This course will survey the field of physical science. The student will study the basics of physics and chemistry. Current events in the sciences and connections to everyday life will be examined.

302 FUNDAMENTALS OF BIOLOGYCREDIT = 1

PREREQUISITE: Teacher recommendation only

This course will survey the field of Biology. The student will study life, with the emphasis on organisms and the things that affect them. Current events in the sciences and connections to everyday life will be examined.

303 ACCELERATED BIOLOGY I (10).....CREDIT = 1

This course will cover all Pennsylvania Academic Standards necessary for successful completion of the Keystone Exam in Biology. General topics include cell structures and process, genetics, and evolution. Specific concepts within each of these disciplines will be covered in greater detail. Course activities will include labs, research projects, lectures, and group investigations. Students with an intrinsic desire and motivation to learn biological concepts are encouraged to enroll.

306 BIOLOGY II (12)CREDIT = 1

PREREQUISITE: Successful completion of Biology I and Chemistry 1 or Teacher recommendation

Students with an interest in any health related careers will benefit greatly from this course in Anatomy and Physiology, or structure and function, of vertebrate animals. While primarily studying human anatomy and physiology, students dissect several other representative vertebrates and some of their organs. Students will perform physiology investigations using Vernier computer probeware, and complete two systems-based presentations.

310 CHEMISTRY I (11)CREDIT = 1

The Chemistry I course builds upon concepts introduced in Physical Science. Course topics include the properties and classification of matter, atomic structure and the periodic table, moles and chemical bonding, and chemical relationships and reactions. Emphasis is placed on developing safe laboratory techniques, proper equipment use, and communicating science. Students interested in learning more about physical science or those pursuing related careers are encouraged to enroll.

312 CHEMISTRY II (12)CREDIT = 1

PREREQUISITE: Successful completion of Chemistry I

This is a second-year course in Chemistry. This course will be a continuation of the first year course in Chemistry as well as an introduction to Organic Chemistry. The course is designed around the individual student and is heavily laboratory oriented. An independent research project is a requirement for this course.

322 PHYSICS (11, 12)CREDIT = 1

PREREQUISITE: Chemistry I or Chemistry I concurrent with Physics.

The Physics course includes topics in mechanics, electricity and magnetism. Knowledge of Algebra and basic Trigonometry is required for the course; the basic ideas of Calculus will be introduced and their applications will be a major goal of the course. Lab work will be assigned periodically to re-enforce topics learned in class.

325 ENVIRONMENTAL PROBLEMS (11,12).....CREDIT = 1

Environmental Problems will deal with ecology, how living things relate to their environment, pollution, and conservation. Time will be spent outdoors observing different ecological environments. The forms of pollution will be studied: water, air, land, noise, etc. The scope of this entire program will deal with the quality of the environment and of our responsibilities to protect it. This course attempts to make the student aware of the many facets of pollution and how the student is encouraged to evaluate his/her environmental behavior and conservation practices.

326 ECOLOGY AND THE ENVIRONMENT (11, 12).....CREDIT = 1

This course will cover all Ecological and Environmental Pennsylvania Academic Standards. General topics include biodiversity, succession, science as inquiry, wetland ecology, population dynamics, pollution, endangered species, conservation, water quality, competition, biogeochemical cycles, and independent research. The class also provides an opportunity to work "in the field" on many concepts. Therefore, dressing for various environmental conditions is important. Students interested in pursuing environmental careers are encouraged to enroll.

328 ADVANCED PLACEMENT ENVIRONMENTAL SCIENCECREDIT = 1

Students will explore and investigate the interrelationships of the natural world, identify and analyze environmental problems, both natural and human-made, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving and/or preventing them.

WORLD LANGUAGE

170 SPANISH I (9-12).....CREDIT = 1

PREREQUISITE: A strong background in English and Guidance Counselor recommendation.

Spanish, level one, serves as a foundation in the introduction to the language and culture of the Spanish-speaking world. Four major areas of achievement are stressed: oral comprehension, oral proficiency, reading comprehension and written comprehension. Also included is the study of Spanish grammar and structure as they pertain to conversation and composition.

171 SPANISH II (10-12)CREDIT = 1

PREREQUISITE: Spanish I

Prior to enrollment, the student will be expected to have mastered the basic skills of level one in all areas and have completed a notebook with all level one material included. The second year course provides both major grammar and structure points in the language. Written themes, talks, conversation on topical subjects, readings in translation and culture units, specifically dealing with Latin America are also discussed.

172 SPANISH III (11, 12).....CREDIT = 1

PREREQUISITE: C average in Spanish II.

The third year course provides enrichment on the cultural level of the Spanish language. Art, music, history and several literary pieces are discussed as well as some fine points of grammar. Much emphasis is placed on the spoken word and students are encouraged to speak only Spanish.

173 SPANISH IV (12)CREDIT = 1

PREREQUISITE: Spanish III

Spanish IV is intended for students who wish to develop their proficiency in all four-language skills: listening, speaking, reading, and writing. Students who enroll are expected to have a basic knowledge of vocabulary and grammar, and should have attained a reasonable proficiency in listening comprehension, speaking, reading, and writing.

181 GERMAN I (9-12).....CREDIT = 1

PREREQUISITE: Guidance Counselor recommendation

Students develop the ability to communicate about themselves and their immediate environment using simple sentences containing basic language structures. Students learn basic skills in listening, reading, writing and speaking with vocabulary presented in topic areas such as food, clothing, free time activities and weather. Students culminate their year with a beginner level oral summative assessment. In addition, students also become familiar with the geography of the D-A-CH (Germany, Austria, Switzerland) countries and the lifestyle of Germanic cultures. [German 1 students are also offered the opportunity to participate in activities organized by the German Club (i.e. Oktoberfest) and (independent of the class) international travel to the D-A-CH facilitated through the Global Community Awareness organization.]

182 GERMAN II (10-12)CREDIT = 1

PREREQUISITE: German I

Students continue to develop proficiency in all four language skills: listening, reading, writing and speaking with an emphasis on the ability to communicate orally and in various social and academic settings. Emphasis is placed on real life short situational role plays, reading a book in German and producing short writings using more complex sentences and language structures. Students culminate their year with a high beginner level oral summative assessment. In addition, students increase their knowledge of the geography of the D-A-CH (Germany, Austria, Switzerland) countries and the lifestyle of Germanic cultures. [German 2 students are also

offered the opportunity to participate in activities organized by the German Club (i.e. Oktoberfest) and (independent of the class) international travel to the D-A-CH facilitated through the Global Community Awareness organization.]

183 GERMAN III (11-12)CREDIT = 1

PREREQUISITE: German II

Students continue to develop proficiency in all language skills: listening, reading, writing and speaking with an emphasis on the ability to communicate orally and in various settings. Emphasis is placed on detailed situational roll plays, reading extensive texts (books, fairy tales) in German and producing writings using complex sentences. Students culminate their year with an intermediate level oral summative assessment. In addition, students increase their knowledge of the geography of the D-A-CH (Germany, Austria, Switzerland) countries and the lifestyle of Germanic cultures. [German 3 students are also offered the opportunity to play an active roll in organizing German Club functions (i.e. Oktoberfest) as well as (independent of the class) international travel to the D-A-CH facilitated through the Global Community Awareness organization.]

184 GERMAN IV (12)CREDIT = 1

PREREQUISITE: German III

Students continue to develop proficiency in all language skills: listening, reading, writing and speaking with an emphasis on the ability to communicate orally and in various settings. Emphasis is placed on analysis through reading extensive texts (current events in the German news, realia, books, fairy tales) in German and producing argumentative writing and oral communication. Students culminate their year with a high intermediate level oral summative assessment. In addition, students increase their knowledge of the geography of the D-A-CH (Germany, Austria, Switzerland) countries and the lifestyle of Germanic cultures. [German 4 students are also offered the opportunity to play an active roll in organizing German Club functions (i.e. Oktoberfest) as well as (independent of the class) international travel to the D-A-CH facilitated through the Global Community Awareness organization.]

BUSINESS DEPARTMENT

431 WORD/EXCEL APPLICATIONS (FIRST SEMESTER).....CREDIT = .5

This computer course is based on the Microsoft Office program of Word and Excel. Students will be exposed to the basic and advanced functions of both computer programs throughout the course via hands-on learning experiences and textbook coverage. Students desiring to take this course should be self-motivated due to the project-oriented nature of the course.

432 ACCESS/PPT APPLICATIONS (SECOND SEMESTER)CREDIT = .5

Microsoft Office programs of PowerPoint, Publisher and Access will be used in this project-oriented course to expose students to the basic and advanced functions of the three applications. Students desiring to take this course should be self-motivated as much of the work will be hands-on application.

434 COMPUTER PROGRAMMING ICREDIT = 1

PREREQUISITE: "C" Average in Algebra I

This is an introductory computer-programming course. Students will learn how to write programs using the basic computer language. This course will review math topics learned in Algebra I and introduces students to logical reasoning.

435 COMPUTER PROGRAMMING IICREDIT = 1

PREREQUISITE: Successful completion of Computer Programming I and teacher recommendation
Students will further their knowledge in computer programming by working on project(s) of their own choosing. Programs written in basic computer programming language in this class can be used as senior projects.

500 INTRODUCTION TO COMPUTER APPLICATIONS (REQUIRED) (9).....CREDIT = .5

This course is designed to equip students with practical use of the computer. Students will learn to keyboard efficiently and accurately using the touch-typing system. The students will acquire basic word processing, spreadsheet, and multi-media presentation skills using Microsoft Word, Excel and PowerPoint. Study skills will be integrated throughout the school year. Successful completion of this course is a Northwestern graduation requirement. (Semester Course)

505 BUSINESS CONCEPTS (9-12)CREDIT = 1

This course is designed to give students a look into the business world as well as information concerning job opportunities. Students will have an opportunity to study the American economic system and the four basic forms of business. In addition, students will be given the opportunity to see how business directly affects their everyday lives by studying such topics as banking/checking accounts, credit and savings accounts, the roll of consumers in our economy, knowledge of consumer publications, and information on buying a car and a home. Incorporated throughout the course are opportunities to discuss or become aware of a variety of careers.

508 BUSINESS MATHEMATICS (10-12)CREDIT = 1

This course is designed to develop competency in mathematics for personal and business use. A basic review of addition, subtraction, multiplication, division, fractions and decimals precedes the application of these related skills to applicable real-life situations, i.e., family budgeting, small business operation, consumer buying, home ownership, travel and transportation, wages/salaries/ commissions, borrowing/saving/investing, taxes, retailing/wholesaling, etc.

510 KEYBOARDING I (10-12)CREDIT = 1

Students will use Microsoft Office to learn the proper keyboarding techniques correctly, format correspondence for personal use, college assignments, and business applications, memorandums, personal and business letters, statistical tables, simple spread- sheets, and reports/ term papers. At least two keyboarding packets will be completed independently during the second semester.

515 KEYBOARDING II (10-12) CREDIT = 1

PREREQUISITE: Keyboarding I

This course is for the student who has completed Keyboarding I and wishes to further develop and advance his/her keyboarding skills. Refinement in production of letters, tables, and other business forms will be emphasized. Students who elect this course should be able to work independently as well as meet deadlines. At least two advanced keyboarding packets will be completed independently during the year.

517 KEYBOARDING III (11-12)CREDIT = 1

PREREQUISITE: Keyboarding I & II

This course is for students who have completed Keyboarding I & II and wishes to further develop and advance his/her keyboarding skills. Refinement in production of letters, tables, and other business forms will be emphasized. Students who elect this course should be able to work independently as well as meet deadlines. At least two advanced keyboarding packets will be completed independently throughout the year.

520 ACCOUNTING I (9*-12).....CREDIT = 1

Basic principles of accounting are presented in this course. The student studies the double-entry system of accounting and learns to complete the accounting cycle for service and merchandising businesses organized as proprietorships and corporations. This course is recommended for students seeking employment in the business world as well as those who may be seeking college or business school training in any number of business related majors, i.e., business administration, marketing, management, and finance.

**With teacher approval*

525 ACCOUNTING II (10-12)CREDIT = 1

PREREQUISITE: Accounting I

This course increases the competency of a student to deal with advanced accounting problems. A thorough review of the fundamentals is presented before the advanced work is started. Computerized accounting using software is incorporated. This course prepares a student for entry-level positions in the accounting field.

526 COMPUTERIZED ACCOUNTINGCREDIT = .5

PREREQUISITE: Accounting I

Many accounting tasks are currently performed through the use of a Computer. This class utilizes a comprehensive approach to teaching accounting concepts in a modern software environment. The class will simulate real-world business issues giving students practical experience journalizing accounting transactions, performing daily practical accounting tasks and routines, producing financial statements and reports and using accounting data to analyze company performance.

529 PERSONAL FINANCECREDIT = .5

Personal Finance helps build the student's financial literacy for lifetime decision-making. All students going into college or the workforce will benefit from this course. Students will be exposed to the following areas of study: Consumer decision-making, taxes, credit cards, services banks offer, buying homes, stock market, retirement planning. This course may be considered an elective, but it is important regardless of their career path.

530 OFFICE TECHNOLOGY (11-12)..... CREDIT = .5

PREREQUISITE: Keyboarding II or teacher recommendation

This course is designed to provide instruction and applications parallel to the current responsibilities of administrative assistants in office environments. It includes the operation of business machines including electronic calculators, cash registers, fax machines, copiers and the like. Upon the successful completion of this course the student will be prepared to apply for entry-level positions in a business office.

531 MARKETING CREDIT = .5

E-marketing, marketing ethics, and international and cross-curricular marketing are just some of the topics that will be covered as students are exposed to the world of marketing. Other topics covered will include promotion, distribution, pricing, selling, product and service management, and employability and career development as a semester is spent exploring the basics of marketing.

532 LIFETIME BUSINESS SKILLS (11-12)..... CREDIT = 1

The purpose of this course is to provide the student with the fundamental concepts and tools of business, computer, and information technology. The skills the students will develop are necessary for living and working in today's business environments, and for applying a variety of business principles and techniques that are used in personal, postsecondary and occupational settings. The teacher will provide the students with opportunities to plan careers, job shadow, and explore business and community transition experiences in the Business, Computer and Information Technology area.

TECHNOLOGY DEPARTMENT

600 INTRO TO TECHNOLOGY EDUCATION CREDIT = 1

The student will explore all areas of manufacturing and construction systems (forest technology, metal working technology, plastics, welding, and materials testing), in hopes of being better able to select an area for deeper research. This is a prerequisite for all other Tech Ed. courses. Communications systems introduces the student to many areas of technical drafting including lettering, sketching, blueprint reading, single view drawings, orthographic drafting and design (CAD), basic architectural floor plans, and blueprint making. Neatness, accuracy, and good work habits are stressed. Power covers magnetism, internal combustion engines, electrical principles, gears, hydraulics, pneumatics, and how they relate to each other in power applications. A text and laboratory experiment form the medium of teaching the concepts. If the required sections are finished early, the student can specialize in any of the areas covered for the remainder of the course. The power sequence should be taken by those students interested in mechanics or electricity.

MANUFACTURING AND CONSTRUCTION SYSTEMS

601-602-631 INDUSTRIAL MATERIALS I/II/III..... CREDIT = .5 each

Students will focus on developing skills used to enhance their woodworking skills. Industrial Materials I will develop skills through teacher assigned projects while second and third level students will choose his/her own individual project. This project will reflect the student's skill level and work ethic. Students will be responsible for refunding the school for materials and hardware used. All projects will focus on quality and craftsmanship.

603-632-633 CABINET/FURNITURE MAKING I/II/III CREDIT = .5 each

Upon successful completion of Industrial Materials I students may enroll in this challenging real world application course. Technological advancements now allow companies to produce quality products at affordable prices. Students will focus on these advancements and apply them to real-world product solutions. Students will seek to advance their skills, become better decision makers and have higher levels of responsibility.

604-605-634 MANUFACTURING I/II/III..... CREDIT = .5 each

Upon successful completion of Intro to Technology you will now enter the world of manufacturing. In Manufacturing I the students will focus on producing a toy for the Toys-for-Cats program. Manufacturing II/III will focus on the creation of a larger piece of furniture to produce and sell, with all proceeds benefiting the students. Students will gain insight into the world of manufacturing through real world application. Students will be responsible for research and design, planning the production run, quality control, material selection and ordering, jigs and fixtures, finishing, and job descriptions.

606-635 BASIC CONSTRUCTION I/II CREDIT = .5 each

Students will get hands-on training in the area of construction and home repair. Students will be introduced to and complete basic work in plumbing, wiring, drywall installation and finishing, framing and concrete. These skills will be developed further through the production of a storage shed or children's playhouse. As part of the course, the students will be hired to work in various positions with- in a construction company and be responsible for a certain phase of construction.

608 WILDCAT VENTURESCREDIT = 1

This course will help “put it all together”. Students will study various technical careers, experience co-operative learning within a work environment, develop good work habits, and build a strong foundation in various technical areas which will enable them to become on the job problem solvers and adaptable to an ever-changing technological society. Through work experience, the mission of this course is to help students develop the necessary skills, attitudes and abilities necessary to be successful in the workplace. Students will form a company to manufacture products ordered from customers. After receiving job descriptions for positions available, students will decide which job(s) they wish to interview for. The owners of the company (C.A.T. Teachers) will then hire the best candidate for each position. The students will design, produce and distribute their product. Students will change jobs periodically throughout the manufacturing of products to enable them to receive a well-rounded experience. When students are hired, they will treat the experience just as if they were working in an actual job. Attendance, work ethic, attitude, and proper dress will be stressed.

POWER SYSTEMS

612-613-614 FOUR-STROKE TECHNOLOGIES I/II/III CREDIT = .5 each

In 4-Stroke Technology I the students will be instructed in safety and in a basic knowledge of the 4-stroke engine cycle. In addition, students will perform routine maintenance on small 4-stroke engines.

In 4-Stroke Technology II/III, the students will apply the knowledge gained in 4-Stroke Technologies I to completely disassemble and rebuild a small 4-stroke engine. The students will also be required to debug a small 4-stroke engine.

616-617-618 WELDING TECHNOLOGY I/II/III CREDIT = .5 each

The student will receive safety instruction and gain a basic knowledge of arc, mig and oxy-acetylene welding along with oxy-acetylene and plasma cutting. The students will apply their knowledge through the completion of small experience projects and more advance projects in Welding Technology II and III.

DIGITAL TECHNOLOGY

620 GRAPHIC DESIGNCREDIT = .5

An introductory course in the field of Graphic Communications. Students will learn the basics of graphics, which will include basic tools and programs that are used throughout the world. Students will also research job opportunities available in the field of graphic communications.

621 DIGITAL MEDIA CREDIT = .5

Students will learn about digital media, including the history of digital media, present technology and future projections. This class will teach the proper use of programs used for digital imaging, as well as the use of video cameras and other digital media players.

ENGINEERING

622 DESIGN AND ENGINEERINGCREDIT = .5

Students will enhance their problem solving skills by designing and constructing solutions to engineering problems. The students will solve problems in the engineering areas of manufacturing, civil, aerospace and mechanical. An example problem would be to engineer a house that could withstand the forces of a hurricane.

624-625-638 CAD I/II/III CREDIT = .5 each

In CAD I the students will be introduced to Computer Aided Drafting which gives the students the ability to understand the processes involved in creating products or manufacturing parts. This class will teach the fundamentals and basics of AutoCAD.

CAD II/III are advanced courses for those students who have completed CAD I/II. In this course, students will learn more in-depth knowledge of AutoCAD and its capabilities, which include threads, fasteners, solid modeling, etc.

626-627-639 ARCHITECTURE I/II/III CREDIT = .5 each

In Architecture I the students will learn the basics of construction and layout, including key concepts that can be used when finding a solution to a building problem. They will learn to correctly use AutoCAD to create floor plans and elevations for buildings and houses, as well as learn the parts and correct procedures used in construction.

In Architecture II/III the students will use the knowledge that they have previously learned in Architecture I/II to design, draw, and construct a model house. They will first use their knowledge of mechanical drawing to draw the elevations and floor plans for their house in either a 1/4 or 1/2 architectural scales. Once the mechanical drawings are finished, the students will transfer their drawings to CAD using architectural settings. When all drawings are finished, the students will begin constructing their scale model house using the architectural drawings they have created.

FOOD, FIBER, ENVIRONMENTAL AND NATURAL RESOURCE SYSTEMS

646 AGRISCIENCE APPLICATIONS CREDIT = 1

This course focuses on integrating biological/physical sciences with technology as related to the environment, natural resources, food production, science and agribusiness. Topics of instruction include agricultural awareness and literacy, leadership and FFA (Future Farmers of America), employability skills and introduction to all aspects of the total agricultural industry. Skills in biology, language, writing, computers, mathematics, and physics are reinforced in this course. Work-based learning strategies appropriate for this course are field trips, shadowing, agriscience projects, and supervised agricultural experiences. (Supervised agricultural experience programs and FFA leadership activities are integral components of the course and provide many opportunities for practical application of instructional competencies.)

647 AGRICULTURE LARGE ANIMAL SCIENCE CREDIT = 1

This course focuses on the basic scientific principles and processes that are involved in animal physiology, breeding, nutrition, and care in preparation for an animal science career major. Topics include animal diseases, introduction to animal science, animal nutrition, animal science issues, career opportunities, and animal evaluation. Skills in Biology, Chemistry, and Algebra are reinforced in this course. Work based learning strategies appropriate for these courses are agriscience projects, internships, and supervised agricultural experiences. Supervised agricultural experience programs and FFA leadership activities are integral components of the course and provide many opportunities for practical application of instructional competencies. Students will be required to complete an animal project for class.

648 SMALL ANIMAL SCIENCE..... CREDIT = 1

This course provides instruction on animal husbandry topics related to small animals that are served by a veterinarian. Content related to the breeding, grooming, care and marketing of animals that fit into this category will be covered through this course. Opportunities for students to gain hands-on experience will be included in the course and reinforced through work-based learning and leadership experiences. FFA and SAE are also an integral part of this class.

649 ENVIRONMENTAL & NATURAL RESOURCES..... CREDIT = 1

This course provides an introduction to environmental studies, which includes topics of instruction in renewable and non-renewable natural resources, history of the environment, personal development, water and air quality, waste management, land use regulations, soils, meteorology, fisheries, forestry and wildlife habitat. Skills in Biology and Algebra are reinforced in this class. Work-based learning strategies appropriate for this course are agriscience projects, field trips, shadowing, and supervised agricultural experiences. Supervised agricultural experience programs and FFA leadership activities are integral components of the course and provide many opportunities for practical application of instructional competencies.

650 AGRICULTURAL AND MECHANICAL ENGINEERING CREDIT = 1

This course develops knowledge and technical skills in the broad field of agricultural machinery, equipment, and structures. The primary purpose of this course is to prepare students to handle the day-to-day problems, accidents, and repair needs they will encounter in their chosen agricultural career. Topics include agricultural mechanics safety, agricultural engineering career opportunities, hand/ power tool use and selection, electrical wiring, basic metal working, basic agricultural construction skills related to plumbing, concrete, carpentry, basic welding, and leadership development. Skills in physics, geometry, and algebra are reinforced in this course.

Work- based learning strategies appropriate for these courses are agriscience projects, field trips, shadowing, and supervised agricultural experiences. Supervised agricultural experience programs and FFA leadership activities are integral components of the course and provide many opportunities for practical application of instructional competencies.

651 HORTICULTURECREDIT = 1

This course provides instruction on the broad field of horticulture with emphasis on the scientific and technical knowledge for a career in horticulture. Topics in this course include plant growth and development, plant nutrition, media selection, basic plant identification, pest management, chemical disposal, customer relations, career opportunities, and leadership development. Skills in Biology, Chemistry, and Algebra are reinforced in this course. Work-based learning strategies appropriate for this course are agriscience projects, internships, and supervised agricultural experiences. Supervised agricultural experience programs and FFA leadership activities are integral components of the course and provide many opportunities for practical application of instructional competencies. Students will have the opportunity to take the private applicators section of the PA State Pesticide Certification Exam for possible certification.

652 LANDSCAPE CONSTRUCTION & GREENHOUSE MANAGEMENTCREDIT = 1

This course provides hands-on instruction and emphasizes safety skills needed by landscape technicians in the field. This course is based on the Pennsylvania Landscape Contractor's Association skill standards for a Certified Landscape Technician. Students are instructed in interpreting landscape designs, identifying landscape plants, and planting/maintaining trees, shrubs and turf. Landscape construction is emphasized in the areas of grading and drainage, irrigation, paver installation and the use/maintenance of landscape equipment. Current topic discussions provide students an understanding of careers and the employability skills needed to enter the landscape industry. Students will have the opportunity to take the CLT test and possibly receive certification. FFA and SAE are also an integral part of this class.

653 - 655 AG LEADERSHIP I, II, III CREDIT = 1

This course is available to FFA officers and committee chairs. The course consists of conducting daily FFA business, produce pro- gram of activities for FFA Chapter, and design and update Albion FFA website as well as web sites for current classes in Ag Education. Students will be required to organize and submit a budget for the year, POA, monthly agendas and meeting skits. Students will study leadership, parliamentary procedure, business planning, accounting, and Agriculture politics.

656 - 659 AG SAE I, II, III, IV CREDIT = 1

This is the Supervised Agriculture Education (SAE) Record Book class. Students must use Pennsylvania's current approved SAE books for current Ag projects, and must complete a minimum of 180 total hours in projects for credit. Letter grade is based on documentation, completeness and accuracy of total SAE Projects. Course is graded as Pass/Fail.

660 AGRICULTURAL ADVANCED STUDIES (12)CREDIT = 1

This is a three-phased exit course for a senior that is career focused in agricultural education. The three components of the program include a research paper, a product, and a presentation. Students demonstrate their ability to use content and apply knowledge to real -world situations in a career major. In addition, they will also demonstrate their ability to write, speak, problem-solve, and use life skills such as time management, planning, follow-through, and organization. Students work under the guidance of a teacher-facilitator in collaboration with community members, business representatives and other school-based personnel.

FAMILY CONSUMER SCIENCE

661 BASIC FOODS (9-12) CREDIT = 1

The Basic Foods course will cover basic nutrition, meal planning and special diets. Also, the majority of the course work will be spent in food preparation units that would include: breads, pastries, cookies, cakes, pastas, soups, meats, candy, salads, fruits and vegetables. The class work includes theory as well as lab work in the kitchens.

662 MAKIN' THE DOUGH (10-12).....CREDIT = .5

It's all about the dough! Pasta dough, pizza dough, cookie dough...you name it! If it's dough, we'll make it! Different techniques for preparing doughs and creating filling dishes will be a major focus.

663 YOU INVITED WHO? LET'S EAT! (10-12).....CREDIT = .5

There's always a reason for a get together! Maybe you would like to learn about cooking in larger amounts. If your desire is to have friends over or cater an event or holiday, this class will work to help you adjust menus and create dishes for larger groups. Organizations and time management are critical skills in any setting so sharpen yours!

664 YOU'VE BEEN CANNED! (10-12)..... CREDIT = .5

Preservation has been used for centuries. Learn how to can, freeze, dehydrate and save money for your efforts! Nothing tastes better than your own pickles or jams! This class will also be involved with working at the Albion Fair in the homemaking department.

665 CHOPPED (10-12).....CREDIT = .5

This course is limited to juniors and seniors that have completed two years of culinary classes. This course will feature students using common culinary ingredients to create their own dishes that will be evaluated by the class for quality, practicality and nutrition. This course will also study different techniques as used in different cultures for food prep.

667 YOU'VE BEEN CANNED, AGAIN! (10-12)CREDIT = .5

You've Been Canned Again is a continuation from You've Been Canned and will concentrate on methods of preservation such as dehydration, smoking/baking, and concentrations. Advanced recipes will focus on higher levels of difficulty in the preservation process. Food safety issues that come with these types of preservation techniques will also be learned.

668 COOKING QUICK AND ON A BUDGET (10-12) CREDIT = .5

This course is designed to help students be smart consumers so they can "have steak on a Ramen noodle" budget. Emphasis will be stressed on easy meals for individuals and families that stay in a budget as well as shortcuts for creating quick meals that are nutritional. Students will learn to use many practical common appliances used in many homes and businesses that make cooking easier and enjoyable.

NOTE: THE FOLLOWING FAMILY CONSUMER SCIENCE ELECTIVES ARE NOT PART OF THE FOOD, FIBER, ENVIRONMENTAL AND NATURAL RESOURCE COMPLETER PROGRAMS.

670 FAMILY TIES (9-12) CREDIT = .5

This course will cover information pertaining to decision-making and parenting skills as well as a child's development and how families operate. It will teach practical budgeting concepts to help students understand and meet basic family needs.

671 FAMILY TIES II (10-12)CREDIT = .5

This course is an in-depth study of family ties, and is an extension of caring and budgeting for a family and learning about both traditional and non-traditional family units.

680 TEACHER PRACTICUM I Middle School- 1 period per day = 1 credit

This course offers an opportunity for students interested in the Education profession, or those who enjoy working with children, to work directly with teachers and younger students. High School students will assist teachers in any way needed and work directly with either elementary or middle school students. Interested students must complete an application through the Guidance Office in order to apply for a position as a Teacher Practicum student. Students are expected to maintain excellence attendance and grades.

681 TEACHER PRACTICUM II Elementary School - 2 periods per day = 2 credits

This course offers an opportunity for students interested in the Education profession, or those who enjoy working with children, to work directly with teachers and younger students. High School students will assist teachers in any way needed and work directly with either elementary or middle school students. Interested students must complete an application through the Guidance Office in order to apply for a position as a Teacher Practicum student. Students are expected to maintain excellence attendance and grades.

ARTS AND HUMANITIES

700 CONCERT BAND (9-12) CREDIT = 1

Concert Band is open to all students with an instrumental music background in grades nine through twelve. Students learn elements and principles of instrumental music. Musicians have the opportunity to perform a deep library of literature from many periods and genres of music.

706 CHORUS (9-12)CREDIT = 1

Chorus is designed to provide enjoyment through participation in singing of materials selected mainly from popular shows, religious, spiritual, and traditional music. Emphasis is also placed on acquiring knowledge about the working of the human voice and how to better use and improve the singer's own voice.

710 ART I (9-12)CREDIT = 1

Art I is a combination class offering both a basic visual art curriculum and a variety of craft methods. Students will be instructed on a series of drawing techniques, painting methods, a base understanding of art through history and the artists that created it. Students are given hands on experience on how are modern arts & crafts were a vital part of the earlier cultures, from how to dye material (Tie Dye), candle making (Ice Candles) to design and architecture.

711 ART II (10-12) CREDIT = 1

PREREQUISITE: Successful completion of Art I or teacher recommendation

This course builds on the principle and techniques taught in Art I . The course also explores alternative art materials such as : Silk Screening, Glass Etching, Batiking, and Tape Sculptures have become part of the mainstream art world as well as how the traditional methods of art such as drawing, painting and sculpture have evolved in this modern world.

712 ART III (11-12)..CREDIT = 1

PREREQUISITE: Successful completion of Art II or teacher recommendation

Students will be using a hands on (creating reproductions) method of comparing art through the timeline and from different cultures throughout the world in that time to gain an appreciation of how art has avoid. (Ex. Realism vs. impressionism) Using research, creation of art reproduction pieces, and observation the students will be able to compare each style and understand their importance in the historic timeline.

713 ART IV (11 -12).....CREDIT = 1

PREREQUISITE: Successful completion of Art II or teacher recommendation

Using a hands on research/ creating reproduction art method of study the students will select a master artist or a culture they are interested in and work through their timeline. They will create art pieces using the same materials and methods originally used.

716 CERAMICS I (9 -12).CREDIT = 1

PREREQUISITE: Successful completion of grade 8 Ceramics or teacher recommendation

This course is designed for the student that is interested in learning the basic methods used in creating art forms from the media of clay, both the hand built methods of building ceramic pieces and the method and techniques of using the pottery wheel.

717 CERAMICS II (10-12)CREDIT = 1

PREREQUISITE: Successful completion of Ceramics I or teacher recommendation

An advanced art class designed for students who have successfully completed the basics methods of a Ceramics I course. This course offers an in-depth study of hand built and wheel created ceramic pieces. Students will gain a broader understanding of the creative process. Building on the principles of ceramics and takes a problem solving approach and combines art and function together to create working pieces such as a functioning tabletop water fountain.

719 STUDIO ARTS (11-12)CREDIT = 1

PREREQUISITE: Successful completion of Art II or teacher recommendation

This course was designed to help the student that has plan to further their art studies in to their college career, by having them build their college entry portfolio. The portfolio will include 20 individual piece or set The portfolio will be presented with both a computer generated format such as PowerPoint presentation; with both photographs of each art piece and a written description of each piece or set.

PHYSICAL EDUCATION DEPARTMENT

PHYSICAL EDUCATION CREDIT = .5

BOYS GIRLS 9th grade 795 797 10th grade 800 801 11th grade 810 811 12th grade (Elective) 820 821

A passing grade in Physical Education must be obtained during the students Freshman, Sophomore, and Junior year. Students are graded on dress code, participation, daily warm-ups, Presidential Fitness testing, and additional assessments, assignments, and quizzes. Physical education classes will be devoted to teaching students how to do the various activities well enough to enjoy the participation. When this level of skill development has occurred, Physical Education classes will then be devoted to participation in the various activities rather than explanations, demonstrations, and practice. Hopefully, each student will find one or more of the activities that he/she will enjoy enough to pursue after graduation. Also, special emphasis is placed on the development and testing of health related fitness. An attempt is made to schedule students according to their appropriate grade level. However, due to scheduling conflicts, some of the classes contain mixed grade levels.

850 HEALTH (11) CREDIT = .5

Efforts are made to teach the most current health information relevant to our student's populations needs in terms of personal, community, family, and consumer health and wellness. Class activities include lectures, discussions, films, guest speakers, small-group work, projects, tests, and quizzes. Delicate topics include things such as but not limited to sexually transmitted diseases, unintended pregnancies and teenage suicide. Other topics include fitness, nutrition, first aid, and drug abuse.

OTHER

226 Academic Sports League (9-12) CREDIT = .5

The Academic Sports League class prepares students to compete in ASL by studying the Art, Music, Language and Literature, Math, Science, Economics and Social Science that are part of the United States Academic Decathlon. The topics in each of those areas change from year to year. Students also develop skills in speech, interview, and essay writing. At ASL meets, students compete against others at their grade point level, "A" students against "A" students, "B" students against "B" students and "C" students against "C" students.

850 Career Exploration (10) CREDIT = .5

This course will provide opportunities for students to explore potential career options and ensure their secondary education is aligned with these goals. The course will use the software, Career Cruising, to analyze career goals, conduct interest surveys, and then link students to resources necessary to accomplish their goals. The course will also allow for more cross-curricular activities so that students have experiences that connect what they are learning in their other courses to real life job expectations and knowledge requirements.

RCI-REGIONAL CHOICE INITIATIVE (DUAL ENROLLMENT)

RCI offers courses through local universities during the regular school day and school day schedule. Courses are taught at a central site (Erie County Tech School Skill Center) and transportation is provided by Northwestern School District. Students can take 6 college credits (2 courses) each semester during their junior and/or senior year. Classes are offered two mornings each week, and students return to Northwestern for afternoon classes. Students may also take dual-enrollment courses directly on a college campus in order to earn both high school and college credits. Students are responsible for their own transportation. See the Guidance office for further details.

ERIE COUNTY TECHNICAL SCHOOL

Communications:

880/828 ART AND DESIGN FOR BUSINESS

The Art & Design program helps students develop and expand their artistic talents as they prepare for a career in the business world of art. Graduates are prepared to go on to college or a post-secondary art school having had courses in areas such as color theory, perspective and illustrative drawing, lettering, photography and graphic design. Students completing the Art & Design program can earn up to 15 credits at the Art Institute of Pittsburgh.

882/830 COMPUTER PROGRAMMING

Prepares students to major in a wide variety of computer related fields. This course exposes students to computer operations, data entry and computer programming in both present and future practices in the ever-changing world of data management. Several post-secondary schools offer academic credits to ECTS graduates in areas such as information management and programming.

887/834 GRAPHIC COMMUNICATIONS

Exposes students to all aspects of the printing business including design, layout, printing, and finishing of any printed material using computer equipment, darkroom equipment and printing presses. Completers of the Graphic Communications program receive credits at the Pittsburgh Technical Institute and Fortis Institute.

Construction:

879/827 CONSTRUCTION TRADES

This program provides students with the theory and fundamental building skills related to residential construction. Program completers can enter construction management programs at post-secondary schools such as the PA College of Technology which is the technical college of Penn State University. Many ECTS graduates move directly into rewarding and successful careers in the construction industry.

890/837 FACILITY MAINTENANCE TECHNOLOGIES

This program prepares students for employment in the facility engineering or maintenance department of any major business. This versatile program offers several areas of instruction in plumbing, electrical, HVAC, carpentry and machining to become diverse, skilled craftsperson. Students are also qualified to attend schools such as the PA College of Technology to earn a degree in a related field.

Human Services

894/840 EARLY CHILDHOOD EDUCATION

This program allows students to develop a strong background in child development and is well prepared to enter many fields related to education at the elementary or early childhood level. ECTS operates the Tech Tikes Preschool that gives high school students the opportunity to work with children from the community in the areas of nutrition, art, music and literature while learning about the growth and development of children. Students receive credit from several colleges towards a degree in education upon completion of this program.

883/831 COSMETOLOGY

This program teaches the art and science of cutting, coloring and processing of hair, nails, skin care and makeup. The program is designed to prepare students for the Pennsylvania State Board entrance exam. Upon passing the state exam students are licensed to work in the growing field of cosmetology in any established salon. Students are also encouraged to take business courses at the collegiate level so they will be qualified to operate and manage their own business.

881/829 CULINARY ARTS

In this program, students are taught all of the areas related to food preparation. An instructional kitchen is utilized to prepare lunches and deli services for the students and faculty. Students are prepared to continue their education at a college or technical institute for hotel and restaurant management or to further develop their skills to become a certified chef.

889/836 HEALTH ASSISTANT

The program prepares students for a variety of health related careers most of which require additional education at the post-secondary level. In this rigorous program, students learn medical terminology, anatomy, physiology and how to perform basic medical procedures. Many health assistant graduates continue their education to become registered nurses or enter into related health care careers.

Manufacturing:

893/839 ELECTRICAL ENGINEERING

The program is designed to provide students with a solid background in electrical systems including hydraulics, pneumatics, motor control, programmable logic controls and residential wiring. Several colleges and post-secondary schools award students credits for completion of the electrical engineering program including Edinboro University.

885/833 ELECTRONICS

The program instructs students in the details of working with digital equipment. Upon completion of the program students pursue careers in the areas of computer and electronic equipment repair, installation and maintenance as well as a wide variety of related careers. Students choosing to continue their education at the post-secondary level are prepared to major in areas such as electrical engineering and electrical grafting.

892/838 METAL FABRICATION

This program trains students in the areas of pattern development, fabrication and welding. Students are prepared to enter the workforce in the demanding field of welding or may continue their education in a manufacturing area.

888/835 PRECISION MACHINING

The program gives students the opportunity to manufacture parts from various metals on machines such as CNC lathes, engine lathes, vertical and horizontal milling machines, surface and cylindrical grinders, drill presses and band saws. Students learn the properties of steel, aluminum and brass and gain an understanding of how these properties are applicable in the trade. Students trained in this program develop the necessary skills to be entry-level machinists.

884/832 DRAFTING AND DESIGN

This program is for students interested in drafting, mechanical design, engineering or architectural drafting. This program provides the fundamentals of mechanical drafting in addition to AutoCAD. Students utilize various applications to create technical and architectural drawings for the manufacturing and construction industries.

Transportation:

877/841 AUTOMOTIVE TECHNOLOGY

Changes in automotive technology have increased the importance of the automotive technician. The program provides the students with the theory and practical experience needed to diagnose and repair automotive systems and their components. Students meeting the requirements will be eligible to take the state inspection test for a Class One license. This course covers the repair and maintenance of the ignition system, tires, braking, steering and suspension, alignment, electrical systems, fuel injection, engine repair, engine performance and cooling system. Major and minor tune-up and inspection procedures are also included as well as state emission testing.

877/841 AUTO BODY REPAIR

Students in this program learn all phases of auto body repair including damage analysis, rebuilding, reconditioning, sanding and refinishing, basic metal working and dent repair, frame straightening, spray painting, welding and glass installation. The program uses demonstration automobiles to provide students with the opportunity to develop confidence by applying the theoretical concepts.

Two Year Programs:

842/843 COMPUTER NETWORKING (JUNIORS/SENIORS ONLY)

This two-year program teaches students to design, build and maintain computer networks. The curriculum covers a broad range of topics from basic networking skills to more complex concepts such as applying troubleshooting tools. This course is designed to provide students with classroom and laboratory experiences in emerging networking technologies that will empower them to further their education in the networking field. Students who successfully complete this program are eligible to earn Cisco Certified Network Associate (CCNA).

The curriculum includes the following: OSI model industry standards; networking topologies; IP addressing, including subnet masks; networking components; basic network technology, design, beginning router configuration, routed and routing protocols, advanced router configurations, LAN switched design, Novell IPX, WAN theory and design, WAN technology, PPP, frame relay, ISDN, and net- work troubleshooting.

844/845 TOURISM AND HOSPITALITY MANAGEMENT (JUNIORS/SENIORS ONLY)

This two-year tourism & lodging management program has everything you will need to get started on a hospitality career. In this program, students participate in classroom activities that teach valuable lodging skills and knowledge. Students will also participate in internships supervised by the instructor and a worksite mentor. Major instructional units in the curriculum include: an overview of lodging management, the front office, housekeeping, leadership and management, marketing and sales, and food and beverage service. This program corresponds to competency lists used in the American Hotel & Motel Association's Educational Institute's post-secondary curriculum and forms the basic for articulation agreements with colleges and universities.

FOUR YEAR PLANNERS

**NORTHWESTERN SCHOOL DISTRICT
FOUR YEAR HIGH SCHOOL PLANNER – ARTS AND HUMANITIES**

Grade 9		Grade 10		Grade 11		Grade 12	
ENGLISH	Accelerated English 9	ENGLISH	Accelerated English 10	ENGLISH	Accelerated English 11	ENGLISH	Accelerated English 12
	English 9		English 10		English 11		English 12
	Basic English 9		Basic English 10		Basic English 11		Basic English 12
	LS English		LS English 10		AP English or Lit		AP English Lang or Lit
					LS English 11		LS English 12
SOCIAL STUDIES	Accelerated American History	SOCIAL STUDIES	Accelerated US Hist Since 1945	SOCIAL STUDIES	Accelerated Civics	SOCIAL STUDIES	Accelerated World Cultures
	American History		US History Since 1945		Civics		World Cultures
	LS Social Studies		LS Social Studies		AP U.S. History		AP US History
					AP Euro. History		AP Euro History
					LS Social Studies		LS Social Studies
MATH	Pre-Algebra	MATH	Pre-Algebra	MATH	Foundations of Alg	MATH	Math Skills and Concepts
	Algebra I		Algebra I		Geometry		Geometry
	Geometry		Algebra II		Algebra II		Algebra II
	Algebra II		Geometry		Trig/Pre-Calculus		Trig/Pre-Calculus
	Algebra IA/B		Algebra IA/B		Algebra IA/B		AP Calculus
SCIENCE	Accelerated Physical Science	SCIENCE	Biology I	SCIENCE	Chemistry	SCIENCE	Chemistry
	Physical Science		Fund of Biology		Environmental Problems		Physics
	Fund of Phys Science		Accelerated Biology				Environmental Prob
					Ecology & The Environment		Ecology & The Environment
WORLD LANGUAGE	Spanish I	WORLD LANGUAGE	Spanish II	WORLD LANGUAGE	Spanish II	WORLD LANGUAGE	Spanish IV
	German I		German II		Spanish III		German IV
					German III		
PHYSICAL EDUCATION	Boys PE 9	PHYSICAL EDUCATION	Boys PE 10	PHYSICAL EDUCATION	Boys PE 11	PHYSICAL EDUCATION	Boys PE 12
	Girls PE 9		Girls PE 10		Girls PE 11		Girls PE 12
	Intro to Computer Applications		Career Explorations		Health		
ELECTIVE	Art I	ELECTIVE	Family Ties	ELECTIVE	Geography/Art History	ELECTIVE	Psychology/Law
	Chorus/Band		Art II		Art III		Art IV
	Basic Foods		Ceramics		Ceramics II		Studio Art
			Chorus/Band		Chorus/Band		Chorus/Band
			US Hist Prof Sports		Family Ties I/II		Business Math

**NORTHWESTERN SCHOOL DISTRICT
FOUR YEAR HIGH SCHOOL PLANNER – BUSINESS & INFORMATION TECHNOLOGY**

Grade 9		Grade 10		Grade 11		Grade 12	
English	Accelerated English 9	English	Accelerated English 10	English	Accelerated English 11	English	Accelerated English 12
	English 9		English 10		English 11		English 12
	Basic English 9		Basic English 10		Basic English 11		Basic English 12
	LS English 9		LS English 10		LS English 11		LS English 12
Social Studies	Accelerated American History	Social Studies	Accelerated US Hist Since 1945	Social Studies	Accelerated Civics	Social Studies	Accelerated World Cultures
	American History		US Hist Since 1945		Civics		World Cultures
	LS Social Studies		LS Social Studies		AP U.S. History		AP U.S. History
					AP Euro. History		AP Euro. History
					LS Social Studies		LS Social Studies
Math		Math	Algebra I	Math	Math Skills & Concepts	Math	Math Skills & Concepts
	Pre-Algebra		Algebra II		Geometry		Geometry
	Algebra I		Geometry		Algebra II		Algebra II
	Geometry		Algebra IA/B		Trig/Pre-Calculus		Trig/Pre-Calculus
	Algebra II				Algebra IA/B		AP Calculus
	Algebra IA/B						Algebra IA/B
							Statistics
Science	Acc Phys Science	Science	Biology I	Science	Chemistry	Science	Biology II
	Physical Science		Fund of Biology		Physics		Chemistry
	Fund of Phys Sci		Accelerated Biology		Environmental Science		Chemistry II
					Ecology & The Environment		Physics
World Language	Spanish I	World Language	Spanish II	World Language	Spanish III	World Language	Spanish IV
	German I		German II		German III		German IV
Phys Ed	Boys P.E. 9	Phys Ed	Boys P.E. 10	Phys Ed	Boys P.E. 11	Phys Ed	Boys P.E. 12
	Girls P.E. 9		Girls P.E. 10		Girls P.E. 11		Girls P.E. 12
	Intro to Comp App		Career Exploration		Health		
Elective	Business Concepts	Elective	Accounting I	Elective		Elective	Life Time Business Skills
	Keyboarding I		Word /Excel/PPT/Access		Accounting II		Office Technology
			Keyboarding II		Keyboarding III		Business Math
			Marketing		Computerized Acct		Personal Finance

NORTHWESTERN SCHOOL DISTRICT
FOUR YEAR HIGH SCHOOL PLANNER – ENGINEERING, MANUFACTURING, & INDUSTRIAL TECHNOLOGIES

Grade 9		Grade 10		Grade 11		Grade 12	
English	Accelerated English 9	English	Accelerated English 10	English	Accelerated English 11	English	Accelerated English 12
	English 9		English 10		English 11		English 12
	Basic English 9		Basic English 10		Basic English 11		Basic English 12
	LS English 9		LS English 10		LS English 11		LS English 12
Social Studies	Accelerated American History	Social Studies	Accelerated US Hist Since 1945	Social Studies	Accelerated Civics	Social Studies	Accelerated World Cultures
	American History		US Hist Since 1945		Civics		World Cultures
	LS Social Studies		LS Social Studies		AP U.S. History		AP U.S. History
					AP Euro. History		AP Euro. History
					LS Social Studies		LS Social Studies
Math		Math	Foundations of Alg	Math	Math Skills & Concepts	Math	Math Skills & Concepts
	Pre-Algebra		Algebra I		Algebra II		Geometry
	Algebra I		Geometry		Trig/Pre-Calculus		Algebra II
	Geometry		Algebra II		Algebra IA/B		Trig/Pre-Calculus
	Algebra II		Algebra IA/B				AP Calculus
	Algebra IA/B						Algebra IA/B
Science	Acc Phys Science	Science	Biology I	Science	Chemistry	Science	Biology II
	Physical Science		Fund of Biology		Physics		Chemistry
	Fund of Phys Sci		Accelerated Biology		AP Environmental Prob		Chemistry II
							Physics
World Language	Spanish I	World Language	Spanish II	World Language	Spanish III	World Language	Spanish IV
	German I		German II		German III		German IV
Phys Ed	Boys P.E. 9	Phys Ed	Boys P.E. 10	Phys Ed	Boys P.E. 11	Phys Ed	Boys P.E. 12
	Girls P.E. 9		Girls P.E. 10		Girls P.E. 11		Girls P.E. 12
	Intro to Comp App		Career Explorations		Health		
Elective	Intro to Technology	Elective		Elective	Welding I/II	Elective	CAD I/II
			Industrial Materials I/II		4-Stroke Tech I/II		Welding I/II
			Manufacturing I/II		Design & Engineering		Architecture I/II

**NORTHWESTERN SCHOOL DISTRICT
FOUR YEAR HIGH SCHOOL PLANNER – HEALTH & HUMAN SERVICES**

Grade 9		Grade 10		Grade 11		Grade 12	
English	Accelerated English 9	English	Accelerated English 10	English	Accelerated English 11	English	Accelerated English 12
	English 9		English 10		English 11		English 12
	Basic English 9		Basic English 10		Basic English 11		Basic English 12
	LS English 9		LS English 10		AP English Lang or Lit		AP English Lang or Lit
					LS English 11		LS English 12
Social Studies	Accelerated American History	Social Studies	Accelerated US Hist Since 1945	Social Studies	Accelerated Civics	Social Studies	Accelerated World Cultures
	American History		US Hist Since 1945		Civics		World Cultures
	LS Social Studies		LS Social Studies		AP U.S. History		AP U.S. History
					AP Euro. History		AP Euro. History
					LS Social Studies		LS Social Studies
Math	Pre-Algebra	Math	Algebra I		Algebra 1	Math	Geometry
	Algebra I		Algebra II		Geometry		Algebra II
	Geometry		Geometry		Algebra II		Trig/Pre-Calculus
	Algebra II		Algebra IA/B		Trig/Pre-Calc		AP Calculus
	Algebra IA/B				Algebra IA/B		Statistics
							Algebra IA/B
Science	Acc Phys Science	Science	Biology I	Science	Chemistry	Science	Biology II
	Physical Science		Accelerated Biology		Physics		Chemistry II
	Fund of Phys Sci		Fund of Biology		Environmental Prob		Physics
					Ecology & The Environment.		AP Environmental Prob
World Language	Spanish I	World Language	Spanish II	World Language	Spanish III	World Language	Spanish IV
	German I		German II		German III		German IV
Phys Ed	Boys P.E. 9	Phys Ed	Boys P.E. 10	Phys Ed	Boys P.E. 11	Phys Ed	Boys P.E. 12
	Girls P.E. 9		Girls P.E. 10		Girls P.E. 11		Girls P.E. 12
	Intro to Comp App		Career Explorations		Health		
Elective	Basic Foods	Elective		Elective	Art History/Geography	Elective	Psychology/Law
			Family Ties		Cooking on a Budget		Chopped
			Makin' The Dough		Family Ties I/II		You've Been Canned Again
			US Hist Prof Sports		You've Been Canned		

NORTHWESTERN SCHOOL DISTRICT
FOUR YEAR HIGH SCHOOL PLANNER – ENVIRONMENTAL & RESOURCE MANAGEMENT

Grade 9		Grade 10		Grade 11		Grade 12	
English	Accelerated English 9	English	Accelerated English 10	English	Accelerated English 11	English	Accelerated English 12
	English 9		English 10		English 11		English 12
	Basic English 9		Basic English 10		Basic English 11		Basic English 12
	LS English 9		LS English 10		AP English Lang or Lit		AP English Lang or Lit
					LS English 11		LS English 12
Social Studies	Accelerated American History	Social Studies	Accelerated US Hist Since 1945	Social Studies	Accelerated Civics	Social Studies	Accelerated World Cultures
	American History		US Hist Since 1945		Civics		World Cultures
	LS Social Studies		LS Social Studies		AP U.S. History		AP U.S. History
					AP Euro. History		AP Euro. History
					LS Social Studies		LS Social Studies
Math	Pre-Algebra	Math	Foundations of Alg	Math	Math Skills & Concepts	Math	Math Skills & Concepts
	Algebra I		Algebra I		Algebra II		Algebra II
	Geometry		Geometry		Trig/Pre-Calculus		Trig/Pre-Calculus
	Algebra IA/B		Algebra II		AP Calculus		AP Calculus
			Algebra IA/B		Algebra IA/B		Algebra IA/B
Science	Acc Phys Science	Science	Biology I	Science	Chemistry	Science	Biology II
	Physical Science		Fund of Biology		Physics		Chemistry
	Fund of Phys Sci		Accelerated Biology		AP Environmental Prob		Chemistry II
							Physics
World Language	Spanish I	World Language	Spanish II	World Language	Spanish III	World Language	Spanish IV
	German I		German II		German III		German IV
Phys Ed	Boys P.E. 9	Phys Ed	Boys P.E. 10	Phys Ed	Boys P.E. 11	Phys Ed	Boys P.E. 12
	Girls P.E. 9		Girls P.E. 10		Girls P.E. 11		Girls P.E. 12
	Intro to Comp App		Career Explorations		Health		
Elective	Intro to Tech Ed	Elective		Elective	Small Animal Science	Elective	Horticulture II
	Agriscience App		Agriculture Animal Sci		Horticulture I		AG Mech Engineering
					Enviro & Natural Res		Design & Engineering